

What is claimed is:

1. A processing apparatus for processing a workpiece, comprising:

5 a cover for covering a portion of a surface, to be processed, of said workpiece;

a process chamber formed by said cover and said surface, to be processed, of said workpiece; and

10 a sealing portion provided between said cover and said surface of said workpiece for sealing said process chamber.

2. A processing apparatus according to claim 1, wherein said sealing portion comprises at least one of a contact seal and a non-contact seal.

3. A processing apparatus according to claim 2, wherein said contact seal comprises at least one of an O-ring and an oil seal.

4. A processing apparatus according to claim 2, wherein said non-contact seal comprises at least one of a magnetic fluid seal and a differential pumping seal.

25 5. A processing apparatus according to claim 1, further comprising a chemical vapor deposition device in said process chamber for depositing a thin film on said surface of said workpiece.

6. A processing apparatus according to claim 1,  
further comprising a chemical liquid cleaning device in said  
process chamber for cleaning said surface of said workpiece  
5 with a chemical liquid.

7. A processing apparatus according to claim 1,  
further comprising a sensor for detecting conditions of said  
surface of said workpiece.

8. A processing apparatus according to claim 7,  
further comprising an adjustment device for adjusting  
processing conditions in said process chamber based on a  
signal from said sensor.

9. A processing apparatus according to claim 1,  
wherein said surface of said workpiece is processed under a  
pressure lower than atmospheric pressure.

10. A processing apparatus according to claim 1,  
wherein said surface of said workpiece is processed under a  
wet condition.

11. A processing method for processing a workpiece,  
25 comprising:

disposing on a surface, to be processed, of said  
workpiece, a processing apparatus comprising a cover for  
covering a portion of said surface, to be processed, of said

workpiece, a process chamber formed by said cover and said surface, to be processed, of said workpiece, and a sealing portion provided between said cover and said surface of said workpiece for sealing said process chamber; and

5                   processing said surface of said workpiece in said process chamber.

12. A processing method according to claim 11,  
wherein a plurality of processing apparatuses are disposed on  
10 said workpiece, and a plurality of portions of said workpiece are simultaneously processed in the respective process chambers of said plurality of processing apparatuses.

13. A processing method according to claim 12,  
15 wherein a plurality of processes are performed under different processing conditions in said respective process chambers of said plurality of processing apparatuses.

14. A processing method according to claim 11,  
20 further comprising changing processing conditions in said process chamber for sequentially performing a plurality of processes.

15. A processing method according to claim 11,  
25 wherein said surface of said workpiece is processed while said process chamber is being moved relatively to said surface of said workpiece.

16. A processing method according to claim 11,  
wherein said process chamber is continuously moved relatively  
to said surface of said workpiece.

5           17. A processing method according to claim 11,  
wherein said process chamber is intermittently moved  
relatively to said surface of said workpiece for processing  
another portion of said surface of said workpiece.